TÜVRheinland®
Precisely Right.

CONFIRMATION

of Product Conformity (QAL1)

Certified AMS:	N300 for CO
Manufacturer:	Teledyne API 9970 Carroll Canyon Road San Diego, CA, 92131 USA
Test Institute:	TÜV Rheinland Energy & Environment GmbH

This is to certify that the AMS has been tested and found to comply with the standards VDI 4202-1 (2018), EN 14626 (2012), EN 14626 (2024) EN 15267-1 (2009) and EN 15267-2 (2023).

The AMS underwent independent expert testing and was accepted.
This confirmation is valid up to the publication of the certificate,
but no longer than 9 months from the date of issue
(this document contains 4 pages).

This confirmation is valid until: 31 December 2026

TÜV Rheinland Energy & Environment GmbH
Cologne, 10 April 2026

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TÜV Rheinland Energy & Environment GmbH
Am Grauen Stein
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confirmation:
10 April 2026

Test report:	936/21255654/B dated 25 January 2023 and Addendum EuL/21272240/B of 15. July 2025
Expiry date:	31 December 2026

Approved application
The tested AMS is suitable for continuous ambient air monitoring of CO (stationary operation).

The suitability of the AMS for these applications was assessed based on a laboratory test and a 3-month field test.

The AMS is approved for an ambient temperature range of +0°C to 45°C.

The notification of suitability of the AMS, performance testing and the uncertainty calculation have been effected on the basis of the regulations applicable at the time of testing. As changes in legal provisions are possible, any potential user should ensure that this AMS is suitable for monitoring the measured values relevant to the application.

Any potential user should ensure, in consultation with the manufacturer, that this AMS is suitable for the intended use.

Basis of the confirmation
This confirmation is based on:

- Test report 936/21255654/B dated 25 January 2023 of TÜV Rheinland Energy GmbH and Addendum EuL/21272240/B of 15. July 2025 issued by TÜV Rheinland Energy & Environment GmbH
- Suitability announced by the German Federal Environment Agency (UBA) as the relevant body
- The ongoing surveillance of the product and the manufacturing process

confirmation:
10 April 2026

Notification of the Federal Environment Agency of 05th July 2023 (BAnz AT 02.08.2023 B7, Chapter II Number 3.1) and of 2nd April 2025 (Banz AT 19.05.2025 B3, Chapter IV, 68th notification).

The measurement system N300 for CO from Teledyne API fulfils the requirements of EN 14626 (edition 2024). An addendum to the test report with the report number EuL/21272240/B can be viewed online at www.qal1.de.

Statement by TÜV Rheinland Energy & Environment GmbH dated 15 July 2025

Tested product

This confirmation applies to automated measurement systems conforming to the following description:

The immission measuring device N300 is a continuous carbon monoxide analyzer. The measurement principle is based on non-dispersive infrared photometry.

The N300 analyzer uses a heated infrared source to generate a beam of broadband IR light with a known intensity (measured during instrument calibration). This beam is sent several times through the measurement chamber, which is filled with sample gas. The measurement chamber uses mirrors at each end to send the IR beam back and forth through the measurement chamber several times (see Figure 3) to create a long absorption path. The absolute length that the reflected light travels is directly related to the intended accuracy of the instrument. The lower the concentrations the instrument is intended to detect, the longer the light path must be to produce detectable attenuations.

Upon exiting the measurement chamber, the light beam passes through a bandpass filter that only allows light with a wavelength of 4.7 µm to pass through. Finally, the beam hits a photodetector, which converts the light signal to a modulated voltage signal representing the attenuated intensity of the beam.

Since water vapor also absorbs light at 4.7 µm, a gas filter correlation (GFC) wheel is added to the IR light path to prevent the interference effect of water vapor. The GFC wheel is a metallic wheel with two chambers. The chambers are hermetically sealed on both sides with a material transparent to 4.7 µm IR radiation Each cavity is mainly filled with gas mixtures. One chamber is filled with pure N2 (the measurement chamber). The other is filled with a mixture of N2 and a high concentration of CO (the reference chamber). As the GFC wheel rotates, the IR light passes alternately through these two cavities. When the beam hits the reference chamber, the CO in the gas filter wheel clears the beam of most of the 4.7µm IR. When the beam hits the measurement chamber, the N_2 in the filter wheel does not absorb the IR light. Thus, a fluctuation in the intensity of the IR light is produced on the photodetector, allowing a measurement signal to be determined.